

REMARKS

This application was originally filed with Claims 1-20. Claims 1-20 are now pending in the application; and Claim 12 was withdrawn from consideration. In the Office Action, Claims 1-11 and 13-20 are rejected.

Claim 12 was withdrawn, being to a non-elected species as the result of restriction requirement. It is respectfully submitted that Claim 12 be examined along with other claims, since it depends on an independent claim now in condition for allowance.

REJECTION UNDER 35 U.S.C. § 112

Claim 5 is rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. This pertains to an example in the specification at Paragraph [0040] stating a repetition rate of 10-Hz and in Claim 5 stating a repetition rate of greater than or equal to 10^{-3} Hz. It is evident that Claim 5 encompasses the rate of the example given at Paragraph [0040]. Thus, Paragraph [0040] and Claim 5 are not inconsistent. It is noted that the range of repetition rate of Claim 5 is not precisely stated in the specification; however, this informality is corrected here by the amendment to the specification at Paragraph [0028].

REJECTION UNDER 35 U.S.C. § 102

Claims 1-4, 6-11 and 13-20 are rejected under 35 U.S.C. § 102(b) as being anticipated by Maksimchuk et al. (Physical Review May 1, 2000 – transcript received September 3, 1999).

It is respectfully submitted that this rejection be withdrawn on the basis that Maksimchuk et al. does not qualify as a reference under § 102(b) and further because the Maksimchuk reference cites as authors inventors of the present invention.

The inventive entity of the present invention encompasses additional inventors in addition to the aforesaid authors. It is well-established that the prior work of one inventor or group of inventors does not constitute prior art as to a later patent obtained jointly by that inventor/group of inventors and one or more additional inventors when the first inventor(s) opted not to obtain a patent on that work. See ***Shields v. Halliburton***, 667 F.2d 1232, 216 USPQ 1066 (5th Cir. 1982), and MPEP § 706.02(a), Subpart III. This approach was also adopted by the Sixth Circuit in a similar factual situation in ***General Motors Corp. v. Toyota Motor Co.***, 667 F.2d 504, 212 USPQ 659 (6th Cir. 1981), cert. denied, 456 U.S. 937 (1982). With this well-established precedent, there is no basis for rejection of the present Claims 1-4, 6-11 and 13-20 under 35 U.S.C. § 102(b).

As to the inapplicability of the reference manuscript under § 102(b), the manuscript was not available to the public prior to the publication date. Applicants submit herewith an on-line document regarding “manuscript submission” printed from *Physical Review Letters* on January 29, 2004, describing the long-established policy, as verified by the *Physical Review Letters* editorial board representative Ms. Debbie (phone number: (635) 591-4000). In an interview with the aforesaid editorial board representative on January 29, 2004, and consistent with the policies as established by the editorial board at least as early as 1991 as evidenced from the aforesaid policy obtained from the web site, manuscripts submitted for review are held in confidence.

To protect such confidentiality, the submitter is only permitted to check the status of the submitted manuscript as it proceeds through the review process by entering a unique user name and password. No members of the public are permitted access to the manuscript under review. It is only at the date of publication that the manuscript becomes available to the public.

In addition to the above, the MPEP at § 2128.02 states that evidence showing routine business practices can be used to establish the date on which a publication became accessible to the public. It is respectfully submitted that herewith sufficient evidence has been submitted to demonstrate confidential status of the aforesaid manuscript submitted for review in 1999, but not published and made available to the public until May 2000.

Claims 1, 2 and 15 are rejected under 35 U.S.C. § 102(b) as being anticipated by Umstadter et al. (U.S. Patent No. 5,789,876).

While not acquiescing to the correctness of this rejection, and to facilitate issuance of claims to allow the subject matter, Claim 1 has been cancelled, Claim 2 is now dependent on Claim 4 and Claim 15 has been cancelled.

On the basis of the above, it is respectfully submitted that Claims 2-4, 6-14, and 16-20 define allowable subject matter and allowance of same is respectfully requested.

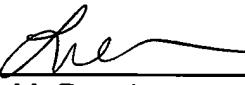
CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is

believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: 1-30-04

By: 
Linda M. Deschere
Reg. No. 34,811

HARNESS, DICKEY & PIERCE, P.L.C.
P.O. Box 828
Bloomfield Hills, Michigan 48303
(248) 641-1600

Enclosure: *Physical Review Letters* on-line document re: manuscript submission,
printed 01/29/2004

LDES/lf-s

G:\ldescher\2115D (The University of Michigan)\001905\Amendment due 02-13-04\Amendment.doc

Physical Review to Process MSWord Submissions

Manuscript Submission

Physical Review & Physical Review Letters

[Guidelines](#)[REVTeX Tips](#)[Frequently Asked Questions](#)**Web Submission to: *Physical Review A-E, ST-AB* and *Physical Review Letters***

There is context-sensitive help available throughout the submission and resubmission processes. However, we strongly advise you to read the entire [Guidelines](#) before using the system for the first time.

Do you use Microsoft Internet Explorer? MSIE seems to work when we test it, but some MSIE users have had trouble here. While we try to figure this out, for reliable service, please try using Netscape. If you have some ideas on what the MSIE problem might be, please send us email at esub-adm@aps.org.

I'm a New User[**Sign me up!**](#)**I'm already registered****Login:**User Name: Password: **Forgotten
password?**

Register again to have a new password sent by email.
User name and email address must match those previously
registered.

[Guidelines](#)[REVTeX Tips](#)[Frequently Asked Questions](#)

[Authors](#) [Referees](#) [Librarians](#) [Subscriptions](#) [Online Services](#) [Help](#)
[Contact Information](#) [APS Home](#) [Text Only APS Journals](#) [APS Journals](#)

Submission: Frequently Asked Questions [April 2001]

1. Why all those different ID names?
2. How do I change the manuscript I just submitted?
3. When will you accept manuscripts prepared by other word processors than the obsolete TeX?
4. Do your file requirements agree with those of the xxx e-Print archive?
5. My password doesn't work - what do I do?
6. How do I change my password?
7. What does the error "No Authentication" mean?
8. What are "cookies" and how do you use them?
9. What should I do if I received an error message that my figure had no number?
10. What does it mean when I am told that my email address does not control the paper?
11. Why does the system keep requesting information that I repeatedly supply?
12. Which browsers are compatible with your file upload forms?

1. Why all those different ID names?

During the submission and review process your manuscript may have as many as three separate seemingly random identifiers. For some of the journals a fourth identifier is assigned at the copy-editing stage, and the fifth and final identifier is given at publication, when it becomes citable. Each of these identifiers has some logical historical justification, but we hope to simplify the publication process in future to reduce the variety. For reference, the identifiers currently in use are:

1. **E-print number** (eg. hep-th/9111777 or aps1991nov07_777) assigned by one of the public e-print servers. This can be used at submission or resubmission to automatically download files from the e-print server.
2. **Temporary ID** for submission (eg. esub1999nov07_777 or es1999nov07_777) used to uniquely identify a new submission to the journals before an editorial code has been assigned. At that point the temporary ID can be safely forgotten.
3. **Editorial code number** (also referred to as the "manuscript accession code") of the form AB1234. This is used throughout the rest of the review process, and in particular can be used by the author to check manuscript status. The editorial code number should also be used with all correspondence during the review process, and is needed in the process to resubmit a manuscript.
4. **AIP ID** - this may be assigned for some *Physical Review* journals at the copyediting stage, but you should not need to know this (just go through the status system to find out current information).
5. **Journal/Volume/Page or article number** for published articles.

2. How do I change the manuscript I just submitted?

If your article has been assigned an editorial code number, follow the procedures for resubmitting with that code number located on our Guidelines page.

If you are sending a corrected version of your paper on the same day as your original submission, or if for some other reason you do not yet have an editorial (manuscript) code number (the temporary ID number is not an editorial code number), this is considered a temporary ID resubmission. After logging in, you should click on the "Resubmit a manuscript" button, followed by the temporary ID number, and

you will then have to submit your manuscript again as though it was a first-time submission.

3. When will you accept manuscripts prepared by other word processors than the obsolete TeX ?

Despite appearances, TeX is actually a rather sophisticated word processing language. Recent LaTeX versions embody some very modern concepts of document structure that are difficult to extract from many other word processing languages - which is why we find LaTeX an excellent starting point for documents to be used in modern large-scale typeset production systems (as noted in the [Guidelines](#)). Nearly 100% of papers prepared for publication in mathematics or astronomy these days use some version of TeX, and this extends to some of the fields covered by the *Physical Review* journals. For those who want to avoid the actual low-level formatting, many visual TeX editors are available. See the [TeX users group](#) for up to date information.

Nevertheless, in response to requests from our users to start accepting electronic manuscripts in Microsoft Word, we have added Microsoft Word to the list of acceptable formats for electronic submissions to all of the *Physical Review* journals. Manuscripts submitted in this format are eligible for the publication charge waiver given to REVTeX manuscripts. Full details regarding procedures for preparation and submittal of Microsoft Word manuscripts that would qualify for the waiver are available in the [file formats](#) of the submission guidelines. It should be noted, however, that REVTeX remains the **preferred** format for electronic submission, because of its greater versatility in the review and publication processes.

4. Do your file requirements agree with those of the xxx e-Print archive?

Yes and no... The most significant issue is that the e-Print archive recommends single-spacing, while we request double-spacing for ease of copy-editing the printed paper. Use of REVTeX makes it possible to easily switch between the two via the "preprint" style, so single-spaced REVTeX files are acceptable. However, other TeX or LaTeX styles are not necessarily easy to modify in this way, and we prefer to receive those files with double-spacing set by the author.

In other areas the issues are not so much differences as stricter requirements on our side. For example, figure placement: if called in to the manuscript via one of the LaTeX graphic packages, figures should be placed along with their captions in a figure section after the end of the text, rather than distributed through the middle of the file. Tables similarly should appear with captions after the reference section. Feynman diagrams and the like drawn with the LaTeX picture environment should generally be treated as figures rather than equations, and should have accompanying PostScript files. See the [REVTeX tips and guidelines on file format](#) for more details. Our purpose is to gather your content in such a way that we can re-use it internally in several modes and again in our final production process; we do not want a "camera-ready" version of your paper.

5. My password doesn't work - what do I do?

The web submissions procedure for all journals requires a password. The first thing to try is to fill in your registered user name and email address again in the "registration" box on the [front page](#) and try to re-register - in most cases this will send a new password for you to your email address. If this does not work you will have to contact APS staff for assistance: esub-adm@aps.org. We cannot retrieve lost passwords - they are stored here only in a one-way encrypted format; when a password is lost we must generate a new one. Once a password is generated, you have the option of changing that password to another of your own choosing.

6. How do I change my password?

After your initial login you will be directed to a page (or click [here](#)) where your existing contributor information is displayed. On that page, you will have the option of changing your password to one of your own choosing. Click on the Change "password" link. You will first complete one field with your desired password, and then you will verify it by retying it in the other field. Then click on the "Change password" button.

7. What does the error "No Authentication" mean?

Your browser must be enabled to accept cookies for the authentication process to respond properly. In Netscape, this can be done under the "Edit" tool at the top of your browser window, i.e., Edit > Preferences > Advanced > "Accept Cookies".

8. What are "cookies" and how do you use them?

Under normal circumstances the interaction between a web server and a client (browser) is "stateless", so that each interaction is independent of previous or subsequent interactions, as far as the protocol is concerned. For a web server supporting a complex transaction crossing several web pages, there are 3 standard methods for preserving "state" in order to create the appearance of a single continuous session between browser and client: forms data, cookies, or session-dependent URL's. All three methods involve the server creating a unique piece of data that identifies the session, and persuading the client browser to return it with each connection. All three methods have advantages and disadvantages relating to user interfaces, network caching, and interlinking between pages. The current web interface uses "cookies" for session management, however we are considering switching to session-dependent URL's possibly late this year or in 2002.

In a form, the session data would be placed within a hidden field in the web page returned from the server, and would then be returned again from the browser when the form is submitted. With a session-dependent URL, the session data is embedded in the URL of links on a page, and so is returned by the client in the next request. With a cookie, the session data need only be sent once by the server, and then (if the cookie was accepted by the browser user) is returned by the browser in the HTTP header information for subsequent requests. The cookies we use are temporary; they are not written to disk or preserved the next time you start up your web browser, and cannot be used to track your usage of our or other systems in any way other than for the single session they are used for (for example for submitting a paper, or a referee report).

9. What should I do if I received an error message that my figure had no number?

On the "files upload" page of your attempted submission be sure to number your figures with the correct corresponding number for each figure in the boxes under the "Fig Number" column.

10. What does it mean when I am told that my email address does not control the paper?

It means that you were not the author who originally submitted, or you have changed your email address, since last submitting. The author who controls the paper can transfer ownership to another registered user. This can be done on the "Details" page of the submission. It reads as follows: You may change the ownership of this paper to a different registered author. Email address: If you still encounter

problems, you may send a message to the Esub-Administrator esub-adm@aps.org, and a staff member will be able to assist your further.

11. Why does the system keep requesting information that I repeatedly supply?

This sounds as if it could be an incompatible browser problem. Are you using one of the browsers with known bugs from our list below? If so, switch to Netscape as your browser of choice for submission purposes. Your problems will most likely be eliminated by doing so. (This is especially typical of problems caused with Internet Explorer.)

12. Which browsers are compatible with your file upload forms?

Some browsers on some operating systems either do not support (or have bugs in their support of) file upload in HTML forms, which has been a part of the HTML 3.2 standard since 1996. You can test your browser [here](#).

Submission via the xxx eprint server is one work-around.

Browsers that do *not* support HTML 3.2 file upload

- Microsoft Internet Explorer prior to version 3.02 (3.02a for Windows 3.1 and NT users, 4.* for Mac users)
- Netscape prior to version 2.0 (also some preview beta releases of Communicator - 4.0)
- NCSA X-Mosaic (version 2.6, and betas of 2.7 and 2.8)
- Lynx (version 2.4.2 is latest tested)
- Arena

Browsers with buggy support for file upload

Microsoft Internet Explorer versions 4.1, 4.5 for Mac
uploaded files are garbled and truncated - seems to be a confusion about Mac data and resource forks.

Netscape 2 and 3 under VMS

Text files were found transferred without any line-separator characters, which renders them useless. A workaround here is to only transfer portable binary files (e.g., gzip files). The browser may also hang without displaying the response page after an upload.

Browsers with no known bugs in file upload support

- Netscape 2 and later.
- MSIE 3.02 and later for Windows, MSIE 5.0 and later for MacOS.
- Omniweb 2 and later for NextStep and MacOS X.
- Opera 5 and later for Windows and Linux.

If you have information to add to this list (a browser and platform that does or does not work) please send a note to esub-adm@aps.org.

Other browser problems

- Lynx and probably other early browsers have limited FORMS support. A "POST" after a "GET"

request to the same URL seems to be disallowed, for example.

[REVTeX Tips](#) / [Guidelines](#) / [Web submissions Home Page](#) / [Research Journals](#) / [The American Physical Society](#)

Physical Review Letters

Editorial Board REPRESENTATIVES

Debbie at 635 591 4000